AF

MS APPEAL BRIEF - PATENTS
PATENT
1560-0345P

IN THE U.S. PATENT AND TRADEMARK OFFICE

In re application of Before the Board of Appeals

Osamu SANO Appeal No.:

Appl. No.: 09/582,870 Group: 3611

Filed: July 6, 2000 Examiner: DePumpo

Conf.: 4434

For: HYDRAULIC CONTROL VALVE AND POWER STEERING APPARATUS USING THE SAME

REPLY BRIEF TRANSMITTAL FORM

MS APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

January 13, 2004

Sir:

Transmitted herewith is a Reply Brief (in triplicate) on behalf of the appellants in connection with the above-identified application.

☐ The enclosed document is being transmitted via the Certificate of Mailing provisions of 37 C.F.R. § 1.8.

The Examiner's Answer was mailed on November 14, 2003.

☐ An extension of time under 37 C.F.R. § 1.136(b) to was requested on and was approved on .

☐ Please charge Deposit Account No. 02-2448 in the amount of $0.00. A triplicate copy of this sheet is attached.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By_____
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MRC/CJB:cb
1560-0345P

Attachment(s)

32/Reply Brief
V. Smith
2/13/04

PATENT
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

IN THE U.S. PATENT AND TRADEMARK OFFICE

In re application of	Before the Board of Appeals
Osamu SANO	
Serial No.: 09/582,870	Art Unit: 3611
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For: HYDRAULIC CONTROL VALVE AND POWER STEERING APPARATUS USING THE SAME	

REPLY BRIEF UNDER 37 C.F.R. § 1.193(b)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

January 13, 2004

Sir:

In response to the Examiner's Answer to the Appeal Brief filed on September 24, 2003, Appellant provides the following comments.

ARGUMENTS

No Ltr 2/25/04

The combination of Kobayashi and Yuuichi do not satisfy the requirements for supporting the rejection under 35 U.S.C. §103(a). Specifically, the combination of Kobayashi and Yuuichi fail to teach or suggest each of the claimed features and further proper motivation to combine the alleged teachings of Yuuichi and Kobayashi has not been established.

The Examiner asserts that Appellant's claims are broad. Appellant notes that Appellant is entitled to the broadest claim scope possible in view of the prior art. Both independent claims 29 and 39 each recite novel and non-obvious features such as, *inter alia*, "only one of said valve body and said valve spool includes pairs of chamfers which are so formed that each of ones of the valve body lands and the valve spool lands has only one chamfer". Thus, either the valve body or valve spool only has chamfers and a pair of chamfers on the valve body or valve spool includes only one chamfer on each land of the valve body or valve spool such that they form a pair. The above claim recitation is easily seen by Figs. 8 and 12 of the present invention and as illustrated in the Appeal Brief.

Contrary to the present invention, Yuuichi provides a hydraulic system having chamfers on both the valve body lands and valve spool lands, each valve body land having alternating lands of a single chamfer and each valve spool having a single chamfer on each valve spool land. Further, Figs. 4A and 4B, which is a discussion of the prior art in Kobayashi, illustrates that only the valve body spool has chamfers in which a pair of chamfers is located on a single land alternating from one land to another. Thus, alternating lands on the valve body spool has two chamfers whereas the land adjacent thereto has none. Further, Figs. 8A and 8B of Kobayashi illustrate dual chamfers on a single land of the valve spool for every land. Finally, Figs. 14A and 14B of Kobayashi illustrate dual chamfers on a single land of the valve body for every land.

Neither Yuuichi nor Kobayashi teach the claimed chamfer arrangement. The Examiner confirms the absence of teachings within each of Yuuichi and

Kobayashi to provide the claimed features of the present invention. The Examiner states on page 5 of the Examiner's Answer in regard to Yuuichi, "each valve spool land has only one chamfer 54. Yuuichi also discloses chamfers on the valve body (i.e. lands 38_2 and 38_8) and therefore, the chamfers are not on 'only one of said valve body or said valve spool', as claimed". The Examiner then asserts that Kobayashi (by way of Figs. 4A and 4B and column 4, line 6) makes up for Yuuichi's deficiencies by asserting that chamfers are only necessary on the sections of spool posts adjacent to the pump supply. However, column 4, lines 3-12 state that chamfer portions were created on both sides of the oil supply chamber to reduce noise. This does not infer, as suggested by the Examiner, that chamfers are only necessary on the sections of the spool post adjacent to the pump supply to reduce noise.

Furthermore, Kobayashi discloses that Figs. 4A and 4B are the prior art and in order to improve on the valve control arrangement showing in Figs. 4A and 4B, experiments were necessary. See column 4, lines 42-67. Thus, one of ordinary skill would not whimsically change the chamfer arrangements as suggested by the Examiner based on known hydraulic valve arrangements to achieve whatever desired arrangement for the chamfers they think looks good or as the Examiner suggests "eases manufacturing". Experimentation and innovation is needed.

The Examiner asserts that Appellant's reasoning for not combining Kobayashi and Yuuichi's teachings is based on reverse logic which is not necessarily accurate. Appellant respectfully submits as indicated above, that

experimentation is necessary in determining chamfer arrangements in a hydraulic valve system. The mere fact that different chamfer arrangements are provided in the prior art does not mean that any combination of chamfer arrangements is obvious. In fact, to the contrary, chamfer arrangements are uniquely postured and calculated with other hydraulic valve pump elements to obtain specific results. Simply stated, neither Kobayashi or Yuuichi teach the specific chamfer arrangement as claimed in the present invention and neither Kobayashi or Yuuichi provide or suggest changing the chamfer arrangements to achieve Appellant's claimed results.

Further, motivation to combine Kobayashi and Yuuichi because of "ease of manufacturing" has not been established. Neither Kobayashi nor Yuuichi discuss manufacturing concerns. Further, Appellants respectfully submit that various manufacturing techniques could be utilized such as milling, cold forging, etc., none of these or other manufacturing techniques are discussed. Thus, it is difficult to understand how one of these processes will be significantly impacted by changes in one or more chamfer arrangements. Further, Appellant respectfully submits that one of ordinary skill in hydraulic pressure control values would not be motivated or concerned by ease of manufacturing in its decision to change chamfer arrangements, especially since none of the references provided discuss or suggest any type of manufacturing concerns.

The Examiner states that "it is presumed that the forming of chamfers on the internal surfaces of the valve body would be rather complex and difficult". (emphasis added) Appellant contends that a presumption is not a qualifying fact

that would lend itself to establish motivation in an obviousness rejection. Appellant respectfully submits that obviousness is a question of law based on the findings of underlying facts relating to the prior art, skill of the artesian, and objective considerations. *In re Dance* 160 F.3d 1339, 1342 (Fed. Cir. 1999); *Graham v. John Deere Co.*, 383 U.S. 1, 17, 86 S.Ct. 684, 15 L.Ed.2d 545, 148 USPQ 459, 467 (1966).

The Examiner may be considered to have knowledge in art of hydraulic pressure control valves, but it is hardly appropriate to consider the Examiner an expert on manufacturing and its techniques. Thus, proof is required in the form of facts to support the Examiner's position. The Examiner has not provided proof or facts to support his position. Further, the Examiner has not provided a declaration regarding his statements. The Examiner has only provided naked assertions, which cannot be considered in determining motivation for an obviousness rejection.

CONCLUSION

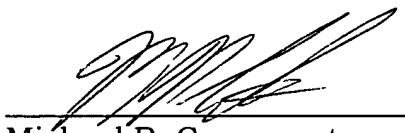
Appellants respectfully submit that the Examiner has failed to establish a proper rejection under 35 U.S.C. §103. Specifically, the Examiner has failed to provide or establish a teaching within the combination of Kobayashi and Yuuichi and Appellant's admitted prior art that the claimed features are taught or suggested by the combination. Further, the Examiner has failed to provide proper motivation to combine these teachings. Accordingly, reversal of the

rejections based on the above arguments and notice provided in the Appeal Brief is respectfully requested.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. 1.16 or under 37 C.F.R. 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By: 

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